

Please amend the claims as follows (this listing replaces all prior versions):

1. (Currently Amended) A method for allocating channels, comprising:
receiving a message having a format that is wireless messages that are in compliance with [[a]] wireless communication standards, at least some of different wireless messages complying with different wireless communication standards standard;
determining the wireless communication standard standards used by the received wireless messages message according to the format of the received message;
determining available channels; and
dynamically allocating channels a-channel based on the available channels and the wireless communication standards standard used by the received message messages to utilize wireless spectrum according to a current usage pattern.
2. (Currently Amended) The method of claim 1 further comprising:
sending an instruction instructions to use the channels channel.
3. (Currently Amended) The method of claim 2, wherein sending comprises sending an instruction instructions to a software-defined signal processing system to allocate the appropriate channels channel for the received messages message.
4. (Original) The method of claim 1, wherein the spectrum of channels includes a channel dedicated to AMPS.
5. (Currently Amended) The method of claim 1, wherein one of the received messages message is a call.

6. (Currently Amended) The method of claim 1, wherein one of the received messages message is a message that is received through an antenna.

7. (Currently Amended) The method of claim 1, further comprising processing one of the received messages message for transmission.

8. (Currently Amended) Apparatus for allocating channels, comprising:
a memory that stores executable instruction signals; and
a processor that executes the instruction signals to:

receive a message having a format that is wireless messages that are in compliance with [[a]] wireless communication standards, at least some of different messages complying with different wireless communication standards standard;

determine the wireless communication standards standard used by the received wireless messages message according to the format of the received message;

determine available channels; and

dynamically allocate a channel channels based on the available channels and the wireless communication standards standard used by the received message messages to utilize wireless spectrum according to a current usage pattern.

9. (Currently Amended) The apparatus of claim 8 further comprising instructions to: send a notification notifications to use the channels channel.

10. (Currently Amended) The apparatus of claim 9, wherein to send instructions an instruction comprises sending instructions an instruction to a software-defined signal processing system to allocate the appropriate channels channel for the received messages message.

11. (Original) The apparatus of claim 8, wherein the spectrum of channels includes a channel dedicated to AMPS.

12. (Currently Amended) The apparatus of claim 8, wherein one of the received messages message is a call.

13. (Currently Amended) The apparatus of claim 8, wherein one of the received messages message is a message that is received through an antenna.

14. (Currently Amended) The apparatus of claim 8, wherein the processor processes one of the received messages message for transmission.

15. (Currently Amended) An article comprising a machine-readable medium that stores executable instruction signals allocating channels, the instruction signals causing a machine to:
~~receive a message having a format that is wireless messages in compliance with [[a]] wireless communication standards, at least some of different messages complying with different wireless communication standards standard;~~

~~determine the wireless communication standards standard used by the received wireless messages message according to the format of the received message;~~

~~determine available channels; and~~

~~dynamically allocate channels a channel based on the available channels and the wireless communication standards standard used by the received message messages to utilize wireless spectrum according to a current usage pattern.~~

16. (Currently Amended) The article of claim 15, further comprising instruction signals causing a machine to:

~~send notification notifications to use the channels channel.~~

17. (Currently Amended) The article of claim 16, wherein to send notification comprises sending ~~an instruction instructions~~ to a software-defined signal processing system to allocate the appropriate ~~channels channel~~ for the received ~~messages message~~.

18. (Original) The article of claim 15, wherein the spectrum of channels includes a channel dedicated to AMPS.

19. (Currently Amended) The article of claim 15, wherein one of the received messages message is a call.

20. (Currently Amended) The article of claim 15, wherein one of the received messages message is a message that is received through an antenna.

21. (Currently Amended) The article of claim 15, wherein the instruction signals cause the machine to process one of the received messages message for transmission.

22. (Canceled)

23. (Canceled)

24. (Currently Amended) The apparatus of claim 8, wherein for each received message, the processor sends an instruction to allocate a channel dedicated to the communication standard for communicating with a mobile device that sent the message.

25. (Previously Presented) The apparatus of claim 24, wherein the processor sends an instruction to a software-defined signal processing device to send another message to the mobile device to use the allocated channel.

26. (Currently Amended) The apparatus of claim 8, wherein the communication standards comprise standard comprises at least one of advance mobile phone service (AMPS), global system for mobile communications (GSM), code division multiple access (CDMA), enhanced data rates for GSM evolution (EDGE) [[and]] or wideband code division multiple access (WCDMA) standard.

27. (Currently Amended) The apparatus of claim 8, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards, and the processor allocates channels dedicated to the communication standards associated with the messages.

28. (Canceled) The apparatus of claim 8, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards, and the processor dynamically responds to the messages to utilize spectrum according to a current usage pattern.

29. (Currently Amended) The apparatus of claim 8, wherein the processor determines frequencies licensed to a user of one of the messages ~~the message~~.

30. (Currently Amended) The apparatus of claim 29, wherein the processor chooses from a list of available channels a channel that meets at least one of the frequency requirement [[and]] or a bandwidth requirement.

31. (Previously Presented) The apparatus of claim 30, wherein the processor sends an instruction to a software-defined signal processing device to send another message to a mobile device to use the allocated channel.

32. (Currently Amended) The apparatus of claim 8, wherein the received messages ~~comprise message comprises~~ a short-message, text, a housekeeping signal, or intended consumer signals.

33. (Previously Presented) The apparatus of claim 14, wherein the message comprises a broadcast.

34. (Previously Presented) The apparatus of claim 33, wherein the processor sends an instruction to allocate a channel dedicated to the communication standard for communicating with a mobile device that receives the broadcast.

35. (Previously Presented) The apparatus of claim 33, wherein the processor sends an instruction to a software-defined signal processing device to send another message to the mobile device to use the allocated channel.

36. (Canceled)

37. (Canceled)

38. (Currently Amended) The apparatus of claim [[8]] 39, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards comprising at least two of advance mobile phone service (AMPS), global system for mobile communications (GSM), code division multiple access (CDMA), enhanced data rates for GSM evolution (EDGE) and wideband code division multiple access (WCDMA) standard, and the processor allocates channels dedicated to the communication standards associated with the messages.

39. (Currently Amended) The apparatus of claim 8, wherein the processor receives messages having formats that are in compliance with communication standards, at least some of different messages complying with different communication standards comprise comprising at least two of advance mobile phone service (AMPS), global system for mobile communications (GSM), code division multiple access (CDMA), enhanced data rates for GSM evolution (EDGE) and wideband code division multiple access (WCDMA) standard, and the processor dynamically responds to the messages to utilize spectrum according to a current usage pattern.

40. (Currently Amended) Apparatus for allocating channels, comprising:
a memory that stores executable instructions; and

a processor that executes the instructions to implement:

receiving a first wireless message from a first wireless device and a second wireless message from a second wireless device, the first and second wireless devices complying with either same or different wireless communication standards, ~~the first and second wireless messages having different formats each in compliance with the corresponding communication standard~~; and

for each of the received first and second wireless messages,

determining the communication standard used by the received message,
determining available channels, and

dynamically allocating a channel based on the available channels and the communication standard used by the received first or second message to utilize wireless spectrum according to a current usage pattern.

41. (Previously Presented) The apparatus of claim 40 in which the first and second communication standards comprise two of AMPS, GSM, CDMA, EDGE, and WCDMA.

42. (Previously Presented) The apparatus of claim 40, further comprising executable instructions to implement: for each of the received first and second wireless messages, sending an instruction to a software-defined signal processing device to send another message to the first or second wireless device to use the corresponding allocated channel.

43. (Previously Presented) The apparatus of claim 40, further comprising executable instructions to implement: receiving additional wireless messages from additional wireless devices, at least some of the additional messages complying with different communication standards, and dynamically responding to the additional wireless messages to utilize spectrum according to a current usage pattern.

44. (Currently Amended) A method for allocating channels, comprising:
receiving a first wireless message from a first wireless device and a second wireless message from a second wireless device, the first and second wireless devices complying with

either same or different communication standards; the first and second wireless messages having different formats each in compliance with the corresponding communication standard; and

for each of the received first and second wireless messages,

determining the communication standard used by the received message,

determining available channels, and

dynamically allocating a channel based on the available channels and the communication standard used by the received first or second message to utilize wireless spectrum according to a current usage pattern.

45. (Previously Presented) The method of claim 44, further comprising, for each of the received first and second wireless messages, sending an instruction to a software-defined signal processing device to send another message to the first or second wireless device to use the corresponding allocated channel.

46. (New) The method of claim 1 in which dynamically allocating channels comprises dynamically allocating a first channel complying with a first wireless communication standard or a second channel complying with a second wireless communication standard depending on the communication standard used by the received message, the first and second channel overlapping in frequency.

47. (New) The apparatus of claim 8 in which dynamically allocate channels comprises dynamically allocate a first channel complying with a first wireless communication standard or a second channel complying with a second wireless communication standard depending on the communication standard used by the received message, the first and second channel overlapping in frequency.

48. (New) The article of claim 15 in which dynamically allocate channels comprises dynamically allocate a first channel complying with a first wireless communication standard or a second channel complying with a second wireless communication standard depending on the

communication standard used by the received message, the first and second channel overlapping in frequency.

49. (New) The apparatus of claim 40 in which dynamically allocating a channel comprises dynamically allocating a first channel complying with a first wireless communication standard or a second channel complying with a second wireless communication standard depending on the communication standard used by the received message, the first and second channel overlapping in frequency.

50. (New) The method of claim 44 in which dynamically allocating a channel comprises dynamically allocating a first channel complying with a first wireless communication standard or a second channel complying with a second wireless communication standard depending on the communication standard used by the received message, the first and second channel overlapping in frequency.